

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: UMESH GUPTA ET AL.

Filed: OCTOBER 3, 2001

RESOURCE MANAGEMENT ARCHITECTURE FOR USE IN  
INFORMATION STORAGE ENVIRONMENTS

Serial No.: 09/970,457

Group Art Unit: 3753

Examiner: UNKNOWN

Atty Docket No.: SURG:160

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Pursuant to 37 C.F.R. 1.8, I certify that this correspondence is being deposited with the U.S. Postal Service in a first class, postage prepaid envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on the date below:

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Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98, it is respectfully requested that this Information Disclosure Statement be entered and the document(s) listed on attached Form PTO-1449 be considered by the Examiner and made of record.

In accordance with 37 C.F.R. §§ 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

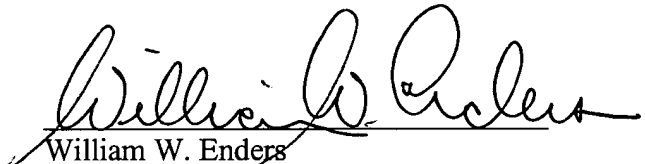
The present Information and Disclosure Statement is being filed prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in

accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Commissioner is hereby authorized to deduct said fees from Deposit Account No. 10-1205/SURG:160.

A copy of the listed document(s) required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

Applicant respectfully requests that the listed document(s) be made of record in the present case.

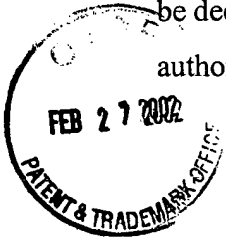
Respectfully submitted,

  
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Enclosures

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**Form PTO-1449** (modified)

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Serial No.

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List of Patents and Publications for Applicant's

Applicant

Gupta et al.

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U.S. Patent Documents

See Page 1

Foreign Patent Documents

See Page 2

Other Art

See Pages 2-5

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Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date if App.
	A1	5,592,672	1/7/97	Grewal et al.			1/18/96
	A2	5,408,465	4/18/95	Gusella et al.			6/21/93
	A3	6,031,841	2/29/00	Woundy			12/23/97
	A4	6,002,667	12/14/99	Manning et al.			7/18/96
	A5	5,996,013	11/30/99	Delp et al.			4/30/97
	A6	5,982,771	11/9/99	Caldara et al.			7/18/96
	A7	5,941,951	8/24/99	Day et al.			10/31/97
	A8	5,940,372	8/17/99	Bertin et al.			7/12/96
	A9	6,091,725	7/18/00	Cheriton et al.			12/29/95
	A10	5,307,347	4/26/94	Duault et al.			4/10/92
	A11	5,490,258	2/6/96	Fenner			9/29/92
	A12	6,034,958	3/7/00	Wicklund			7/11/97
	A13	6,067,574	5/23/00	Tzeng			5/18/98
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	A16	5,987,611	11/16/99	Freund			5/6/97
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	A18	5,809,258	9/15/98	Bermanian et al.			1/6/97
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	A20	5,941,969	8/24/99	Ram et al.			10/22/97
	A21	5,987,627	11/16/99	Rawlings, III			10/27/92
	A22	4,716,525	12/29/87	Gilanyi et al.			4/15/85
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3753U.S. Patent Documents  
See Page 1Foreign Patent Documents  
See Page 2Other Art  
See Pages 2-5**Foreign Patent Documents**

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
	B1	WO 99/33229	7/1/99				Yes
	B2	WO 99/03298	1/21/99				Yes
	B3	WO 97/47113	12/11/97				Yes

**Other Art (Including Author, Title, Date, Pertinent Pages, Etc.)**

Exam. Init.	Ref. Des.	Citation
	C1	"Network Processor Designs for Next-Generation Networking Equipment White Paper" <a href="http://www.exchip.com/html/tech_nsppaper.html">http://www.exchip.com/html/tech_nsppaper.html</a> , 8/30/00, pgs. 1-8
	C2	"C5DCP: C-5 Digital Communications Processor (DCP)" <a href="http://ebus.mot-sps.com/ProdCat/psp/0,1250,C5DCP~M957198845249,00.html">http://ebus.mot-sps.com/ProdCat/psp/0,1250,C5DCP~M957198845249,00.html</a> , 9/11/00, pgs. 1-5
	C3	Product Brief, C-Port A Motorola Company, "C-5 Digital Communications Processor" pgs. 1-8
	C4	Product Brief, Prism IQ2000, Family of Network Processors, "Ushering In A new Era Of Performance and Flexibility, pgs. 1-4
	C5	"Strategies to Protect Against Distributed Denial of Service (DDoS) Attacks" <a href="http://www.ieng.com/warp/public/707/newflash.html">http://www.ieng.com/warp/public/707/newflash.html</a> , 2/17/00, pgs. 1-6
	C6	Press Release, Vitesse and Power X Announce Agreement To Provide Solutions For High-Performance Networking Applications, <a href="http://www.sitera.com/news_events/pr_archive/partner_pr/pr090999.html">http://www.sitera.com/news_events/pr_archive/partner_pr/pr090999.html</a> , 9/19/00, pgs 1-3
	C7	Press Release, Power X Unveils Switch Fabric Breakthrough At Networkworld & Interop In Atlanta, <a href="http://www.px.uk.com/px_news_press_10.htm">http://www.px.uk.com/px_news_press_10.htm</a> , 9/19/00, pgs. 1-4
	C8	"SP2 High Performance Switch Overview" <a href="http://www.mhpcc.edu/training/workshop/ibmhsw/switch.html">http://www.mhpcc.edu/training/workshop/ibmhsw/switch.html</a> , 9/19/00, pgs. 1-4
	C9	CSIX Position Paper, "The Need For A New Common Switch/Fabric Interface To Support Next Generation Networks" <a href="http://www.csix.org/csixpp.htm">http://www.csix.org/csixpp.htm</a> , 9/19/00, pgs. 1-4

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See Page 1

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See Page 2

Other Art

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Exam. Init.	Ref. Des.	Citation
	C10	Press Release, C-Port and Power X Announce Agreement To Deliver Integrated Solution For High-Performance Networking Applications" <a href="http://www.cportcorp.com/news/pr_990329.htm">http://www.cportcorp.com/news/pr_990329.htm</a> , 9/19/00, pgs. 1-3
	C11	"ASP Server Farm Load Balancing" <a href="http://www.asptoday.com/articles/20000822.htm">http://www.asptoday.com/articles/20000822.htm</a> , 10/10/00, pgs. 1-5
	C12	"Network Processor Units: The Rising Storm" <a href="http://www.sunworld.com/sunworldonline/swol-07-2000/f_swol-0700-npu.html">http://www.sunworld.com/sunworldonline/swol-07-2000/f_swol-0700-npu.html</a> , 8/30/00, pgs. 1-6
	C13	Russell Johnson, "Routing Depends on Switch Fabric" <a href="http://www.eetimes.com/printableArticle?doc_id=OEG20000124S0043">http://www.eetimes.com/printableArticle?doc_id=OEG20000124S0043</a> , 9/19/00, pgs. 1-4
	C14	Matsumoto and et al., "Startups Stake Out Turf in Network Processor Battle" <a href="http://www.eetimes.com/story/industry/semiconductor_news/OEG19990913S0028">http://www.eetimes.com/story/industry/semiconductor_news/OEG19990913S0028</a> , 9/11/00 pgs. 1-7
	C15	Braden, Ed., et al., "Resource ReSerVation Protocol (RSVP)", Version 1 Functional Specification, Sept. 1997
	C16	Blake, et al., "An Architecture for Differentiated Services", Dec. 1998
	C17	Nichols, et al., "Definition of the Differentiated Services Field (DS Field) in the Ipv4 and Ipv6 Headers", Dec. 1998
	C18	"White Paper-Introduction to QoS Policies", Stardust.com, Inc., July 6, 1999
	C19	"White Paper-QoS Protocols & Architectures", Stardust.com, Inc., July 8, 1999
	C20	"Technology Backgrounder-Quality of Service-Glossary of Terms", Compiled by Vicki Johnson, Stardust.com, Inc., May 1999
	C21	Platt, Charles, "The Future Will Be Fast But Not Free", May 2001
	C22	"Quality of Service (QoS) in the New Public Network Architecture", <i>IEEE Canadian Review - Fall/Autumn</i> 2000
	C23	Armitage, Grenville et al., "MPLS: The Magic Behind the Myths", <i>IEEE Communications Magazine</i> , January 2000

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	C27	Dan, et al., "A Generalized Interval Caching Policy for Mixed Interactive and Long Video Workloads," 8 pages
	C28	Dan, et al., "An Online Video Placement Policy based on Bandwidth to Space Ratio (BSR)," SIGMOD, pp. 376-385 (June 1995)
	C29	Ozden, et al., "Buffer Replacement Algorithms for Multimedia Storage Systems," 9 pages
	C30	Carter, et al., "Improving Video-on-Demand Server Efficiency Through Stream Tapping," 8 pages
	C31	Golubchik, et al., "Reducing I/O Demand in Video-On-Demand Storage Servers," ACM 0-89791-695, pp. 25-36 (June 1995)
	C32	Sitaram, et al., "Multimedia Servers Applications, Environments, and Design" Chapter 11 Caching Overview and Chapter 12 Memory Cache," pp. 213-251 (2000)
	C33	Ghandeharizadeh, et al., "Mitra: A Scalable Continuous Media Server," Multimedia Tools and Applications 5, pp. 79-108 (1997)
	C34	Little, et al., "Popularity-based assignment of movies to storage devices in a video-on-demand system," Multimedia Systems 2:280-287 (1995)
	C35	Lougher, et al., "The Design of a Storage Server for Continuous Media," The Computer Journal, Vol. 36, No. 1 (1993)
	C36	Teorey, et al., "A Comparative Analysis of Disk Scheduling Policies," Comm. of the ACM Vol. 15, No. 3, pp. 177-184 (1972)
	C37	Gemmell, et al., "Multimedia Storage Servers: A Tutorial," IEEE Vol. 28, No. 5, pp. 40-49 (May 1995)
	C38	Chen, et al., "Optimization of the Grouped Sweeping Scheduling (GSS) with Heterogeneous Multimedia Streams," 7 pages

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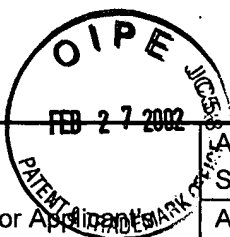
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See Pages 2-5**Other Art (Including Author, Title, Date, Pertinent Pages, Etc.)**

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	C39	Reddy, et al., "I/O Issues in a Multimedia System," 22 pages
	C40	Anderson, et al., "A File System for Continuous Media," ACM Transactions on Computer Systems, Vol. 10, No. 1, pp. 311-387 (November 1992)
	C41	Vin, et al., "Designing a Multiuser HDTV Storage Server," IEEE Vol. 11, No. 1, pp. 153-164 (January 1993)
	C42	Triantafillou, et al., "Prefetching into Smart-Disk Caches for High Performance Media Servers," 6 pages
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	C44	Ng, et al., "Maximizing Buffer and disk Utilizations for News On-Demand," Proceedings of the 20th VLDB Conference, pp. 451-462 (1994)
	C45	Haskin, "Tiger Shark -- A scalable file system for multimedia," IBM J. Res. Develop., Vol. 42, No. 2, pp. 185-188 (March 1998)
	C46	Kienzle, et al., "Multimedia file serving with the OS/390 LAN server," IBM Systems Journal, Vol. 36, No. 3 (1997)
	C47	Reisslein, et al., "High-Performance Prefetching Protocols for VBR Prerecorded Video," 27 pages (September 1998)
	C48	Sen, et al., "Online Smoothing of Variable-Bit-Rate Streaming Video," CMPSCI Technical Report 98 -- 75, 30 pages
	C49	Dan, et al., "Buffer Management Policy for an On-Demand Video Server," IBM Research Report 94A002114, RC 19347 (84219) Computer Science, 25 pages (January 10, 1994)
	C50	Nussbaumer, et al., "Networking Requirements for Interactive Video on Demand," IEEE Vol. 13, No. 5 pp. 779-787 (June, 1995)
	C51	Griwodz, et al., "Long-term Movie Popularity Models in Video-on-Demand Systems or The Life of an On-Demand Movie," ACM Multimedia 97 -- Electronic Proceedings, 13 pages (November 1997)
	C52	Reddy, "Evaluation of Caching Strategies for an Internet server," IEEE 0-8186-7819, pp. 118-125 (April 1997)
	C53	Park, et al., "Multi-Phase Interval Caching For a News On Demand Server," 5 pages
	C54	Lee, et al., "Exploiting Caching for Realtime Multimedia Systems," 6 pages

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